

Claims

What is claimed is:

1. A face mask, comprising:
a body portion configured to be placed over a mouth and at least part of a nose of a user in order to isolate the mouth and the at least part of the nose of the user from the environment such that the air of respiration is drawn through the
5 body portion, the body portion having a baffle layer having an outer and an inner surface with a plurality of projections extending from at least one of the outer and inner surfaces, the baffle layer configured to aid in absorbing energy associated with fluid striking the body portion and to prevent fluid strike through.
2. The face mask of claim 1, wherein the projections and the outer surface of the baffle layer define a plurality of interconnected channels for redirecting the flow of fluid that strikes the body portion, the channels having an orientation such that the fluid is directed laterally away from the point of impact of the fluid through the
5 channels.
3. The face mask of claim 1, wherein:
the body portion has a first layer contacting the projections of the baffle layer; and
the body portion has a third layer contacting the inner surface of the baffle
5 layer.
4. The face mask of claim 3, wherein the first layer is stiffer than the baffle layer.
5. The face mask of claim 1, wherein the projections are circular pillows.
6. The face mask of claim 1, wherein the projections are hexagonal in shape.

7. The face mask of claim 1, wherein the baffle layer is a film, and wherein each of the projections defines a hole therethrough.

8. The face mask of claim 1, wherein the projections are ridges that define a plurality of valleys such that the outer surface of the baffle layer has a corrugated shape.

9. The face mask of claim 1, wherein the plurality of projections each defines a cavity on the inner surface of the baffle layer.

10. The face mask of claim 1, wherein the plurality of projections extend from the outer surface of the baffle layer.

11. The face mask of claim 1, wherein the baffle layer is made from a web formed into a three-dimensional shape.

12. A face mask comprising:

a body portion configured to be placed over a mouth and at least part of a nose of a user in order to isolate the mouth and the at least part of the nose of the user from the environment such that the air of respiration is drawn through the body portion, the body portion having at least one layer, the layer having an outer surface facing away from the user when worn and an inner surface facing towards the user when worn, the layer having a plurality of projections extending therefrom, the projections aiding in absorbing energy associated with fluid striking the body portion.

13. The face mask of claim 12, wherein the body portion has an inner facing layer contacting the skin of the user when worn, an outer facing layer, and a filtration media layer disposed between the inner facing layer and the outer facing layer, wherein the layer with the plurality of projections is any one of the inner facing layer, outer facing layer, and filtration media layer.

14. The face mask of claim 13, wherein the plurality of projections extend from an outer surface of the filtration media layer.

15. The face mask of claim 13, wherein the outer facing layer is stiffer than the filtration media layer.

16. The face mask of claim 12, wherein the body portion has an additional layer that is the layer farthest from the user when worn and adjacent to the layer having the projections, the additional layer stiffer than the layer having the projections.

17. The face mask of claim 12, wherein the body has a plurality of layers, and wherein the projections define an interior space between the layer having the projections and an adjacent layer.

18. The face mask of claim 12, wherein the projections are located on the outer surface of the layer and wherein each of the projections defines a cavity on the inner surface of the layer, and wherein the body portion has a plurality of layers, and wherein the projections define an interior space between the layer having the projections and an outer adjacent layer, and wherein the cavities on the inner surface of the layer minimize contact between the inner surface of the layer and an inner adjacent layer.

19. The face mask of claim 12, wherein the projections and the outer surface of the layer define a plurality of interconnected channels for redirecting the flow of fluid that strikes the body portion such that the fluid is directed across the outer surface of the layer having the projections away from the point of initial contact of the fluid with the layer.

20. The face mask of claim 12, wherein the projections are circular pillows.

21. The face mask of claim 12, wherein the projections are hexagonal in shape.

22. The face mask of claim 12, wherein the layer having the projections is a film, and wherein each of the projections defines a hole therethrough.

23. The face mask of claim 12, wherein the projections are ridges that define a plurality of grooves such that the outer surface of the layer having the projections has a corrugated shape.

24. The face mask of claim 12, wherein the plurality of projections each defines a cavity on the opposite surface of the layer from which the plurality of projections extend.

25. The face mask of claim 12, wherein the plurality of projections extend from the outer surface of the layer having the projections.

26. The face mask of claim 12, wherein the body portion is made from a web formed into a three-dimensional shape.

27. A face mask comprising:

a body portion configured to be placed over a mouth and at least part of a nose of a user in order to isolate the mouth and the at least part of the nose of the user from the environment such that the air of respiration is drawn through the body portion, the body portion having an inner facing layer, an outer facing layer, and a baffle layer disposed between the inner facing layer and the outer facing layer, the baffle layer having an inner surface and an outer surface wherein the outer surface of the baffle layer has a plurality of projections extending therefrom, the projections aiding in absorbing energy associated with fluid striking the body portion, wherein the projections and the outer surface of the baffle layer define a plurality of interconnected channels for redirecting the flow of fluid that strikes the body portion such that the fluid is directed across the outer surface of the baffle layer away from the point of initial contact of the fluid with the baffle layer.